

**IN THE DRAWINGS:**

Please replace Sheet 1/1 with the attached Replacement Sheet 1/1 that includes changes to Figures 1 and 2. In both of these Figures, "VHDL" has been replaced with "HDL."

Attachment: Replacement Sheet 1/1

### **REMARKS/ARGUMENTS**

The Applicants originally submitted Claims 1-20 in the application. In previous responses, the Applicants amended Claims 1, 6-7, 15 and 18. In the present response, the Applicants have amended Claims 1, 4-5, 7-8, 11, 13-15 and 19. Support for the amendment can be found, for example, in paragraphs 21, 24 and 28 of the original specification. Claims 1-20 are currently pending in the application.

#### **I. Objection of the Specification and the Drawings**

The Examiner has objected to the specification and the drawings. In response, the Applicants have amended paragraph 19 of the specification and Figures 1-2 of the drawings. Accordingly, the Applicants respectfully request the Examiner to withdraw the objection of the drawings and the specification and allow issuance of the application.

#### **II. Rejection of Claims 1-7 and 15-20 under 35 U.S.C. §101**

The Examiner has rejected Claims 1-7 and 15-20 under 35 U.S.C. §101 for being directed to non-statutory subject matter. The Applicants appreciate the comments from the Examiner regarding this rejection. In response, the Applicants have amended independent Claims 1 and 15 to render this rejection moot. Accordingly, the Applicants respectfully request the Examiner to withdraw the §101 rejection and allow issuance of Claims 1 and 15 and Claims dependent thereon.

### III. Rejection of Claims 1-14 under 35 U.S.C. §112

The Examiner has rejected Claims 1-14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In response, the Applicants have amended Claims 1, 7 and 8. The Applicants therefore respectfully request the Examiner withdraw the §112 rejection and allow Claims 1-14 to issue.

### IV. Rejection of Claims 1-20 under 35 U.S.C. §103

The Examiner rejected Claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,937,190 to Gregory, *et al.*, in view of U.S. Patent No. 5,146,583 to Matsunaka, *et al.*, for Claims 1, 2, 5, 7-12 and 14; in further view of U.S. Patent No. 6,760,888 to Killian, *et al.*, for Claims 3, 4, 6, 13, and 15-19; and in further view of U.S. Patent No. 6,928,629 to Johnson for Claim 20. The Applicants respectfully disagree.

In the rejection of each of the independent Claims 1, 8 and 15, the Examiner relies on Gregory to disclose transforming the intermediate graph into a mathematical tree. (*See* Examiner's Action, pages 7-8, 11 and 17.) More specifically, the Examiner cites column 3, lines 19-21, of Gregory to disclose "(a) software translator then **converts that description** into generic technology **structures that directly correspond statement by statement** with the designer's description." (*See* Examiner's Action, page 7. Emphasis included in the Examiner's Action.) This differs from the inventions recited in Claims 1, 8 and 15 that includes "selectively adding virtual elements and nodes to said intermediate graph to transform said intermediate graph into a mathematical tree." Thus,

even assuming *arguendo* that “that description” of Gregory equates to the presently claimed “intermediate graph,” “virtual elements and nodes” are not added thereto. Instead, Gregory discloses direct correspondence, statement by statement. Thus, the software translator of Gregory as asserted by the Examiner does not teach or suggest transforming an intermediate graph into a mathematical tree by selectively adding virtual elements and nodes to the intermediate graph. Gregory, therefore, does not teach or suggest each element for which it has been cited with respect to independent Claims 1, 8 and 15.

Matsunaka has not been cited to cure the above noted deficiency of Gregory with respect to independent Claims 1, 8 and 15 but to disclose other elements thereof. (*See* Examiner's Action, pages 8-9.) As such, the applied combination of Gregory and Matsunaka does not provide a *prima facie* case of obviousness of independent Claims 1, 8 and 15 and Claims dependent thereon.

The other cited references Killian and Johnson have not been applied to address independent Claims 1, 8 and 15 but to disclose additional limitations of dependent claims. (*See* Examiner's Action, pages 13-16 and 19.) Therefore, cited combination of Gregory and Matsunaka with Killian or Johnson does not provide a *prima facie* case of obviousness of independent Claims 1, 8 and 15 and Claims dependent thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection with respect to Claims 1-20 and allow issuance thereof.

Regarding dependent claims, the Applicants do not find where the cited references, individually or in combination, teach or suggest the additional limitations of amended dependent Claims 4-5, 7, 11, 13-14 and 19. The Applicants respectfully request the Examiner to indicate otherwise if the Examiner disagrees.

**V. Comment on Cited References**

The Applicants reserve further review of the references cited but not relied upon if relied upon in the future.

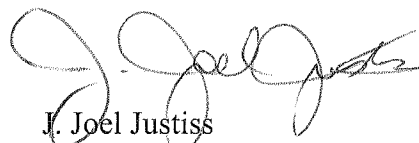
**VI. Conclusion**

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-20.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

**HITT GAINES, PC**

A handwritten signature in black ink, appearing to read "J. Joel Justiss", written over a horizontal line.

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